屋宇署 BUILDINGS DEPARTMENT

樓宇發展項目每年能源消耗量聲明
Declaration on Annual Energy Use of a Building Development

認可人士、註冊結構工程師及註冊岩土工程師作業備考
PNAP
APP-151
附錄 Appendix **B**

• 請以正楷填寫，並在適當方格內加上『√』號，填寫前，請細閱《注意事項》。
• Read the "Matters to Note", complete in BLOCK LETTERS and tick the appropriate boxes.

致建築事務監督 To the Building Authority

第一部 樓宇詳情
Part 1 Building Particulars

樓宇名稱(如知悉) (中文) Name of Building (if known) (Chinese)

翠鳴臺

樓宇名稱(如知悉) (英文) Name of Building (if known) (English)

TERRACE CONCERTO

地盤地址(中文) Address of Site (Chinese)

鳴琴路3號

地盤地址(英文) Address of Site (English)

3 MING KUM ROAD, TUEN MUN, N.T.

地段編號 Lot No.

TMTL 545

樓宇類型 Type of Building

☐ 住宅樓宇 Domestic Building
☐ 非住宅樓宇 Non-domestic Building
☑ 綜合用途樓宇 Composite Building

提供中央空調 Provision of Central Air Conditioning

☐ 是 Yes
☑ 否 No

提供具能源效益的設施 Provision of Energy Efficient Features

☑ 是 Yes
☐ 否 No

擬安裝 / 已安裝的具能源效益的設施
Proposed / Installed Energy Efficient Features

☑ 擬安裝 Proposed / ☐ 已安裝 Installed

	中文 Chinese	英文 English
1.	可變速驅動器	VARIABLE SPEED DRIVE
2.	發光二極管 (LED) 燈	LED LIGHTING
3.		

ⓘ 如空位不敷應用，請於附加頁填寫。
If space is insufficient, please fill in the additional sheet(s).

☐ 另加附加頁 Additional ☐ 張 Pages

第二部 擬興建 / 已竣工樓宇 / 部分樓宇預計每年能源消耗量
Part 2 Predicted Annual Energy Use of Proposed / Completed Building / Part of Building

☑ 擬興建 Proposed / ☐ 已竣工 Completed ☑ 樓宇 Building / ☐ 部分樓宇 Part of Building ⓘ 見註 See Note (1)

發展項目類型 Type of Development	位置 Location	使用有關裝置的內部樓面面積 Internal Floor Area Served (平方米 m²)	基線樓宇每年能源消耗量 Annual Energy Use of Baseline Building (平方米/年 m³/annum) ⓘ 見註 See Note (2)		擬興建/已竣工樓宇每年能源消耗量 Annual Energy Use of Proposed/Completed Building (平方米/年 m³/annum)	
			電力 Electricity 千瓦小時 kWh	煤氣 / 石油氣 Town Gas / LPG 用量單位 Unit	電力 Electricity 千瓦小時 kWh	煤氣 / 石油氣 Town Gas / LPG 用量單位 Unit
住用發展項目 (不包括酒店) Domestic Development (excluding Hotel)	中央屋宇裝備裝置 Central building services installation ⓘ 見註 See Note (3)	1827.887	565,260	N.A.	421,690	N.A.
非住用發展項目 (包括酒店) Non-domestic Development (including Hotel) ⓘ 見註 See Note (4)	平台 (中央屋宇裝備裝置) Podium(s) (central building services installation)	N.A.	N.A.	N.A.	N.A.	N.A.
	平台 (非中央屋宇裝備裝置) Podium(s) (non-central building services installation)	N.A.	N.A.	N.A.	N.A.	N.A.
	塔樓 (中央屋宇裝備裝置) Tower(s) (central building services installation)	N.A.	N.A.	N.A.	N.A.	N.A.
	塔樓 (非中央屋宇裝備裝置) Tower(s) (non-central building services installation)	N.A.	N.A.	N.A.	N.A.	N.A.

一般來說,樓宇的預計每年每平方米能源消耗量愈低,樓宇的能源消耗愈有效。例如,如果擬興建樓宇的預計每年能源消耗量少於基線樓宇預計的每年能源消耗量,則表示擬興建樓宇的預計能源使用較基線樓宇有效。減少愈多,效能愈大。

In general, the lower the estimated "Annual Energy Use" of the building, the more efficient the building in terms of energy use. For example, if the estimated "annual energy use of proposed building" is less than the estimated "annual energy use of baseline building", it means the predicted use of energy is more efficient in the proposed building than in the baseline building. The larger the reduction, the greater the efficiency.

第三部 按機電工程署公布的相關實務守則設計 / 完成的裝置
Part 3 Installation(s) Designed / Completed in Accordance with the Relevant Codes of Practice Published by the Electrical and Mechanical Services Department

以下裝置乃按機電工程署公布的相關實務守則
In accordance with the relevant Codes of Practice published by the Electrical and Mechanical Services Department, the following installation(s) is / are ☑ 設計 designed / ☐ 完成 completed :

裝置類型 Type of Installations	是 Yes	否 No	不適用 N/A
照明裝置 Lighting Installations	☑	☐	☐
空調裝置 Air Conditioning Installations	☑	☐	☐
電力裝置 Electrical Installations	☑	☐	☐
升降機及自動梯的裝置 Lift & Escalator Installations	☑	☐	☐
以總能源為本的方法 Performance-based Approach	☐	☑	☐

註冊專業工程師 / 註冊能源效益評核人資料
Details of the Registered Professional Engineer / Registered Energy Assessor

中文姓名* Name in Chinese* ⓘ 姓氏先行 Surname first
胡偉業

英文姓名* Name in English* ⓘ 姓氏先行 Surname first
WU WAI YIP

註冊證明書編號* Certificate of Registration Number*
RP05291 / 10

註冊屆滿日期* Date of Expiry of Registration*
31 03 2018
日 dd 月 mm 年 yyyy

專業身份 Professional Capacity
☑ 註冊專業工程師 Registered Professional Engineer ☐ 註冊能源效益評核人簽署 Registered Energy Assessor

申請人資料
Details of the Applicant

姓名/公司名稱(中文) Name / Company (Chinese)
香港房屋協會

姓名/公司名稱(英文) Name / Company (English)
HONG KONG HOUSING SOCIETY

第四部 聲名
Part 4 Declaration

認可人士姓名(中文)*
Name of Authorized Person (Chinese)* ⓘ 姓氏先行 Surname first
劉鏡釗

認可人士姓名(英文)*
Name of Authorized Person (English)* ⓘ 姓氏先行 Surname first
LAU KING-CHIU, HENRY

註冊證明書編號* Certificate of Registration Number*
AP(A) 83 / 81

註冊屆滿日期* Date of Expiry of Registration*
31 12 2020
日 dd 月 mm 年 yyyy

本人在載有此聲明書的唯讀光碟上簽署並謹衷誠作出此項鄭重聲明確信上述資料為真確無訛。
By signing the DVD Rom containing this declaration, I make this solemn declaration conscientiously believing the information contained in this declaration is true.

日期 Date
18 08 2017
日 dd 月 mm 年 yyyy

* 根據註冊記錄
* In accordance with the registration record

Proposed Subsidized Housing Development at Junction of Shek Pak Tau Road and Ming Kum Road, Tuen Mun - T.M.T.L. 545, NT
Annual Energy Use Calculation for APP 151 (4/8/2017)

Predicted Annual Energy Use of Proposed / Completed Building / Part of Building

Type of Development	Internal Floor Area Served (m2)	Annual Energy Use of Baseline Building (kWh)					Annual Energy Use of Proposed / Completed Building (kWh)				
		Air-conditioning	Electrical	Lighting	Lift	Total	Air-conditioning	Electrical	Lighting	Lift	Total
Domestic Development	1827.887	214,711	16,716	145,076	188,757	565,260	192,538	16,716	67,808	144,628	421,690

Proposed Subsidized Housing Development at Junction of Shek Pak Tau Road and Ming Kum Road, Tuen Mun - T.M.T.L. 545, NT

Annual Energy Use Calculation for APP 151 (4/8/2017)

Energy Use of A/C Installation

Floor	Area	Cooling Load (kW)	Operating Hour/ Day	Baseline Building Power Consumption			Proposed Building Power Consumption		
				COP	Power Consumption (kW)	Power Consumption (kWh/year)	COP	Power Consumption (kW)	Power Consumption (kWh/year)
G/F	Entrance Lobby	18.0	24.0	3.3	5.5	47,782	3.68	4.89	42,848
	Office Accomodation for Watchmen	7.2	9.0	3.3	2.2	7,168	3.68	1.96	6,428
	Owners Committee Office	5.6	9.0	3.3	1.7	5,575	3.68	1.52	4,999
1/F	Game Room 1	22.6	14.0	3.3	6.9	35,058	3.68	6.15	31,438
	Game Room 2	9.7	14.0	3.3	2.9	15,021	3.68	2.64	13,470
	Game Room 3	7.5	14.0	3.3	2.3	11,676	3.68	2.05	10,470
	Game Room 4	14.6	14.0	3.3	4.4	22,531	3.68	3.95	20,204
	Lift Lobby	7.5	14.0	3.3	2.3	11,676	3.68	2.05	10,470
	Lounge	37.6	14.0	3.3	11.4	58,224	3.68	10.22	52,211
Total						214,711			192,538

Note:

1. Minimum COP for VRV: 3.3 (According to BEC 2015)
2. COP for Proposed VRV: 3.68
3. A/C in G/F Lobby is to be operated at 24 hours.
4. A/C in Office Accomodation for Watchmen is to be operated from 7 a.m. to 6 p.m.
5. A/C in Owners Committee is to be operated from 7 a.m. to 6 p.m.
6. A/C in Recreational Area is to be operated from 8 a.m. to 10 p.m.

Proposed Subsidized Housing Development at Junction of Shek Pak Tau Road and Ming Kum Road, Tuen Mun - T.M.T.L. 545, NT
Annual Energy Use Calculation for APP 151 (4/8/2017)

Energy Use of EL Installation

No.	Equipment	Motor Power (kW)	Estimated Operating Hour / Day	Baseline Building Power Consumption		Proposed Building Power Consumption	
				Motor Efficiency (%)	Power Consumption (kWh/year)	Motor Efficiency (%)	Power Consumption (kWh/year)
FB-S-01 & 02	Shop Flushing Water Booster Pump	1.5	0.5	82.8	331	82.8	331
CB-T-01 & 02	Tower Fresh Water Booster Pump	3.3	1.0	85.5	1,409	85.5	1,409
CT-T-01 & 02	Tower Fresh Water Transfer Pump	12.5	2.5	91.4	12,480	91.4	12,480
FT-T-01 & 02	Tower Flushing Water Transfer Pump	12.5	0.5	91.4	2,496	91.4	2,496
Total					16,716		16,716

Proposed Subsidized Housing Development at Junction of Shek Pak Tau Road and Ming Kum Road, Tuen Mun - T.M.T.L. 545, NT
Annual Energy Use Calculation for APP 151 (4/8/2017)

Energy Use of Lift Installation

Lift	Floors Served	Operating Hour / Day (Rated Load)	Operating Hour / Day (50% Loaded)	Baseline Building Power Consumption		Proposed Building Power Consumption	
				Power Consumption (kW)	Power Consumption (kWh/year)	Power Consumption (kW)	Power Consumption (kWh/year)
1	G/F, 1/F , 2-30/F	6.0	3.6	22.1	62,919	17.40	49,538
2		6.0	3.6	22.1	62,919	17.40	49,538
3		6.0	3.6	22.1	62,919	16.00	45,552
Total					188,757		144,628

Note:

1. Maximum Electrical Power of 850kg & 900kg, 2.5m/s Lift: 22.1 kW (According to BEC 2015)
2. Electrical Power of the Proposed Lift no. 1 and 2: 17.4 kW
3. Electrical Power of the Proposed Lift no. 3: 16 kW
4. The rush hours of lifts in residential building at 6.5 a.m. to 8.5 a.m. and 4 a.m. to 8 a.m is assumed, the lifts will be operated at rated load. (6 hours / day)
5. Lifts is to be 50% loaded at operating hours (other than item 4 as mentioned above). Also, lifts will not running at all the time, 0.2 diversity factor for operating time is taken. (18 x 0.2 = 3.6 hours / day)

Proposed Subsidized Housing Development at Junction of Shek Pak Tau Road and Ming Kum Road, Tuen Mun - T.M.T.L. 545, NT
Annual Energy Use Calculation for APP 151 (4/8/2017)

Energy Use of Lighting Installation

Floor	Area	Operating Hour/ Day	Floor Area (m2)	Baseline Building Power Consumption			Proposed Building Power Consumption		
				LPD (W/m^2)	Max Lighting Load (W)	Power Consumption (kWh/year)	No. of Light fittings	Lighting Load (W/no.)	Power Consumption (kWh/year)
G/F	Entrance Lobby	24.0	57.554	14	806	7,061	14	21	2,576
1/F	Lift Lobby	14.0	45.852	11	505	2,581	10	21	1,074
	Game Room 1	14.0	49.943	17	850	4,344	17	21	1,825
	Game Room 2	14.0	21.462	17	365	1,866	8	21	859
	Game Room 3	14.0	16.071	17	274	1,401	5	21	537
	Game Room 4	14.0	21.511	17	366	1,871	10	21	1,074
	Lounge	14.0	56.214	17	956	4,886	20	21	2,147
	Male Toilet	14.0	10.615	11	117	598	5	16	409
	Female Toilet	14.0	13.985	11	154	787	6	16	491
	Accessible Toilet	14.0	5.365	11	60	307	2	16	164
Typical	Lobby (29 Floors)	24.0	464.000	11	5,104	44,712	87	21	16,005
	Corridor 1 (29 Floors)	24.0	649.455	8	5,196	45,517	174	16	24,388
	Corridor 2 (29 Floors)	24.0	415.860	8	3,327	29,145	116	16	16,259
Total			1827.887			145,076			67,808

Note:

1. Lighting load including gear loss (5% of lamp wattage) is assumed.
2. Lighting in G/F Lobby, Typical Lift Lobbies and Typical Floor Corridors is to be operated 24 hours.
3. Lighting in Recreational Area is to be operated from 8 a.m. to 10 p.m.